

GENERAL NOTES

- Specifications:** Latest SHA Specifications and Special Provisions for materials and construction. Latest AASHTO Standard Specifications for Highway Bridges for design.
- Materials:** Posts and rails shall conform to ASTM F-1083, Schedule 80. Fabric shall be 6 gauge, 2" PVC coated mesh conforming to 914.01.
- All posts, braces, fittings and hardware shall be PVC coated. Coating shall conform to 914.03 except that nuts, bolts and washers shall also be PVC coated and touched up after installation.
- All plates shall be steel conforming to ASTM A 709 Grade 36.
- Anchor studs or anchor bolts shall conform to ASTM A 276, Type 430 or Type 304 stainless steel annealed, hot-finished, ultimate strength 70 000 psimin., 20% min. elongation. Threads may be rolled or cut.
- Epoxy grout for anchor studs in cored holes shall conform to 902.11(d).
- PVC color for all elements of fence shall be black unless otherwise noted.
- Construction:** All longitudinal rails shall be parallel to top of parapet.
- All posts shall be set normal to top of parapet for roadway grades 6% or less. For grades over 6% posts shall be set plumb.
- The chain link fence shall be true to line, taut, tight fit to top of parapet, with 1/2" min. to 1" max. gap, and shall comply with the best practice for fence construction of this type.
- Post and rails shall be permanently positioned before fabric is placed.
- For post spacing see pertinent structure sheets.
- Precoated longitudinal rails, if cut, shall have the cut end coated with PVC touch up material supplied by the manufacturer prior to erection.
- If Contractor elects to place anchor studs after placing concrete parapet, newly placed rebars shall be located so that coring does not damage same, all holes shall be cored (not drilled) and the diameter of the cored holes for the anchor studs shall be 7/8".
- Measurement and Payment:** The furnishing, fabricating, erecting, etc., of all new chain link fence on the bridges, complete in place, will not be measured for payment but all costs thereof shall be included in the Contract lump sum prices for the pertinent Chain Link Safety Fence For Bridge Items.
- The furnishing, fabricating, erecting, etc., of all new chain link fence anti-climb shields, complete in place, will be measured and paid for at the Contract unit prices per each for the pertinent Chain Link Safety Fence Anti-Climb Shield items.
- Any defects uncovered by the inspection of welds on base plates and poles shall be repaired or replaced by new members at no additional cost to the Administration.

APPROVAL		
<i>L.S. Friedman</i> DIRECTOR OFFICE OF BRIDGE DEVELOPMENT		
DATE: 6/3/76		
REVISIONS		
SHA	FHWA	
4-27-94	.	
11-17-97	.	
3-13-01	.	
7-24-01	.	

FHWA APPROVAL	DATE: 11-9-76
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STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF BRIDGE DEVELOPMENT

CHAIN LINK SAFETY FENCE-NEW STRUCTURES
GENERAL NOTES

STANDARD NO. BR-SS(3.01)-75-21

SHEET 1 OF 1

GENERAL NOTES

- Specifications:** Latest SHA Specifications and Special Provisions for materials and construction. Latest AASHTO LRFD Bridge Design Specifications.
- Materials:** Posts and rails shall conform to ASTM F-1083, Schedule 80. Fabric shall be 6 gauge, 2" PVC coated mesh conforming to 914.01.
- All posts, braces, fittings and hardware shall be PVC coated. Coating shall conform to 914.03 except that nuts, bolts and washers shall also be PVC coated and touched up after installation.
- All plates shall be steel conforming to ASTM A 709 Grade 36.
- Anchor studs or anchor bolts shall conform to ASTM A 276, Type 430 or Type 304 stainless steel annealed, hot-finished, ultimate strength 70 000 psimin., 20% min. elongation. Threads may be rolled or cut.
- Epoxy grout for anchor studs in cored holes shall conform to 902.11(d).
- PVC color for all elements of fence shall be black unless otherwise noted.
- Construction:** All longitudinal rails shall be parallel to top of parapet.
- All posts shall be set normal to top of parapet for roadway grades 6% or less. For grades over 6% posts shall be set plumb.
- The chain link fence shall be true to line, taut, tight fit to top of parapet, with 1/2" min. to 1" max. gap, and shall comply with the best practice for fence construction of this type.
- Post and rails shall be permanently positioned before fabric is placed.
- For post spacing see pertinent structure sheets.
- Precoated longitudinal rails, if cut, shall have the cut end coated with PVC touch up material supplied by the manufacturer prior to erection.
- If Contractor elects to place anchor studs after placing concrete parapet, newly placed rebars shall be located so that coring does not damage same, all holes shall be cored (not drilled) and the diameter of the cored holes for the anchor studs shall be 7/8".
- Measurement and Payment:** The furnishing, fabricating, erecting, etc., of all new chain link fence on the bridges, complete in place, will not be measured for payment but all costs thereof shall be included in the Contract lump sum prices for the pertinent Chain Link Safety Fence For Bridge Items.
- The furnishing, fabricating, erecting, etc., of all new chain link fence anti-climb shields, complete in place, will be measured and paid for at the Contract unit prices per each for the pertinent Chain Link Safety Fence Anti-Climb Shield items.
- Any defects uncovered by the inspection of welds on base plates and poles shall be repaired or replaced by new members at no additional cost to the Administration.

APPROVAL	
<i>L.S. Friedman</i> DIRECTOR OFFICE OF BRIDGE DEVELOPMENT	
DATE: 6/3/76	
REVISIONS	
SHA	FHWA
11-17-97	.
3-13-01	.
7-24-01	.
10-9-07	.

FHWA APPROVAL
DATE: 11-9-76

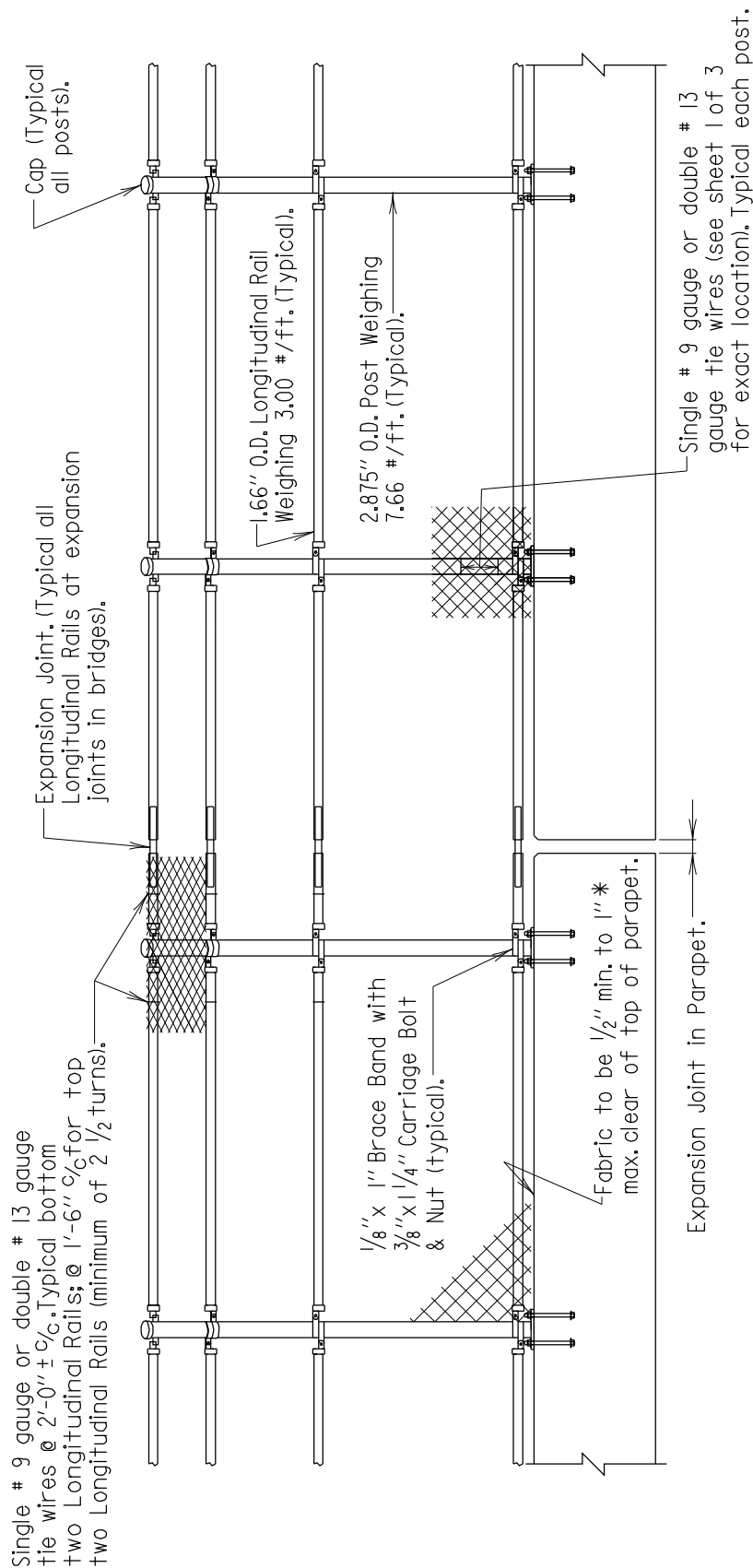
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF BRIDGE DEVELOPMENT

CHAIN LINK SAFETY FENCE-NEW STRUCTURES
GENERAL NOTES




STANDARD NO. BR-SS(3.01)-75-21(L)

SHEET 1 OF 1



ELEVATION
Scale: $\frac{3}{8}''=1'-0''$

* Before placing fencing, place $\frac{1}{2}''$ to $1''$ thick material (wood, etc.) on top of parapet to ensure the desired gap is achieved. After fence is rigidly attached, this temporary blocking shall be removed.

APPROVAL	
 DIRECTOR OFFICE OF BRIDGE DEVELOPMENT	
DATE: 6/8/76	
REVISIONS	
SHA	FHWA
1-1-88	6-8-90
11-17-97	.
1-22-01	.
FHWA APPROVAL	
DATE: 11-9-76	

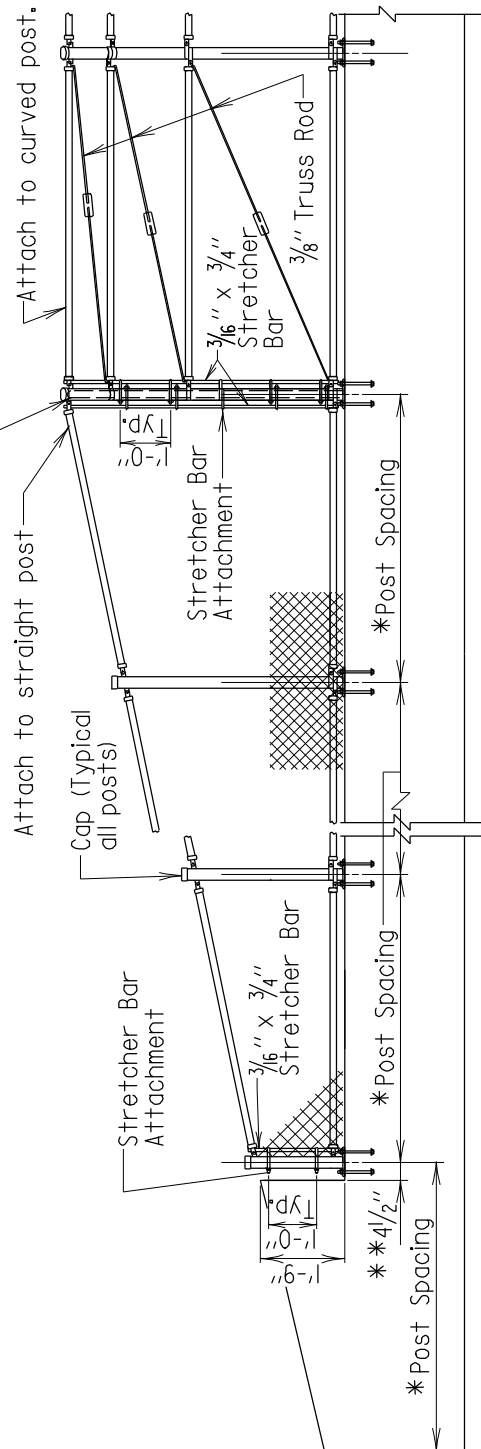
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF BRIDGE DEVELOPMENT

TYPE I CHAIN LINK SAFETY FENCE
NEW STRUCTURES

STANDARD NO. BR-SS(3.02)-75-22

SHEET 2 OF 3

Anti-climb Shield (shown dashed). Place Anti-climb Shield at first full height post. Typical for both ends and both sides of each bridge.



* See plans for fence post spacing.
 ** Dimension is 1'-0" when first fence post is on the bridge.

END SECTION DETAIL
 Scale: 1/4"=1'-0"

APPROVAL	
<i>R. S. Friedman</i> DIRECTOR OFFICE OF BRIDGE DEVELOPMENT	
DATE: 6/19/89	
REVISIONS	
SHA	FHWA
11-17-97	.
7-31-98	.
1-22-01	.
9-22-06	.

FHWA APPROVAL
 DATE: 6-8-90

STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF BRIDGE DEVELOPMENT

TYPE I CHAIN LINK SAFETY FENCE
 NEW STRUCTURES

STANDARD NO. BR-SS(3.02)-75-22

SHEET 3 OF 3

1.660" O.D. pipe, weighing 3.00 #/ft.
(Typical all longitudinal rails).

2.875" O.D. pipe, weighing 7.66 #/ft.
(Typical all posts).

2"-#6 gauge chain link
fence screen (5'-0").

1/2" plate-see DETAIL A

Typ. 3/16"

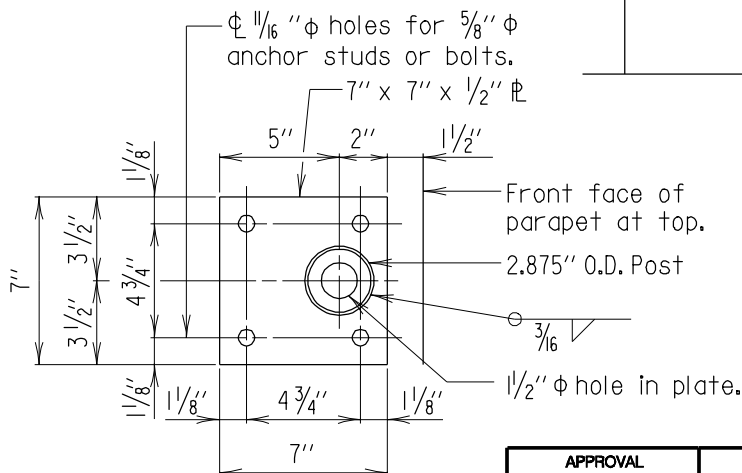
9"
7 1/4"
1 3/4"

4- 5/8" ϕ anchor studs with nuts and washers
(@ each end) or 4- 5/8" ϕ hex. head anchor bolts
(head down) with hex. nuts and washers.*

Note:
34" F-shape parapet with
straight back shown, see
Typical Section for exact
parapet configuration.

Varies

4 3/4" 2 5/8"



DETAIL A

Scale: 1 1/2" = 1'-0"

TYPICAL SECTION

Scale: 3/4" = 1'-0"

* As an option, the Contractor may set the
anchor studs after placing concrete barrier
using 7/8" dia. cored holes and an approved
epoxy grout. Nuts and washers shall be omitted
from the embedded ends of anchor studs. No
additional compensation will be allowed for this
option.

APPROVAL	
<i>E. S. Friedman</i> DIRECTOR	
OFFICE OF BRIDGE DEVELOPMENT	
DATE: 6/8/76	
REVISIONS	
SHA	FHWA
3-22-88	6-8-90
11-17-97	.
3-21-01	.
6-1-05	.

FHWA APPROVAL
DATE: 11-9-76

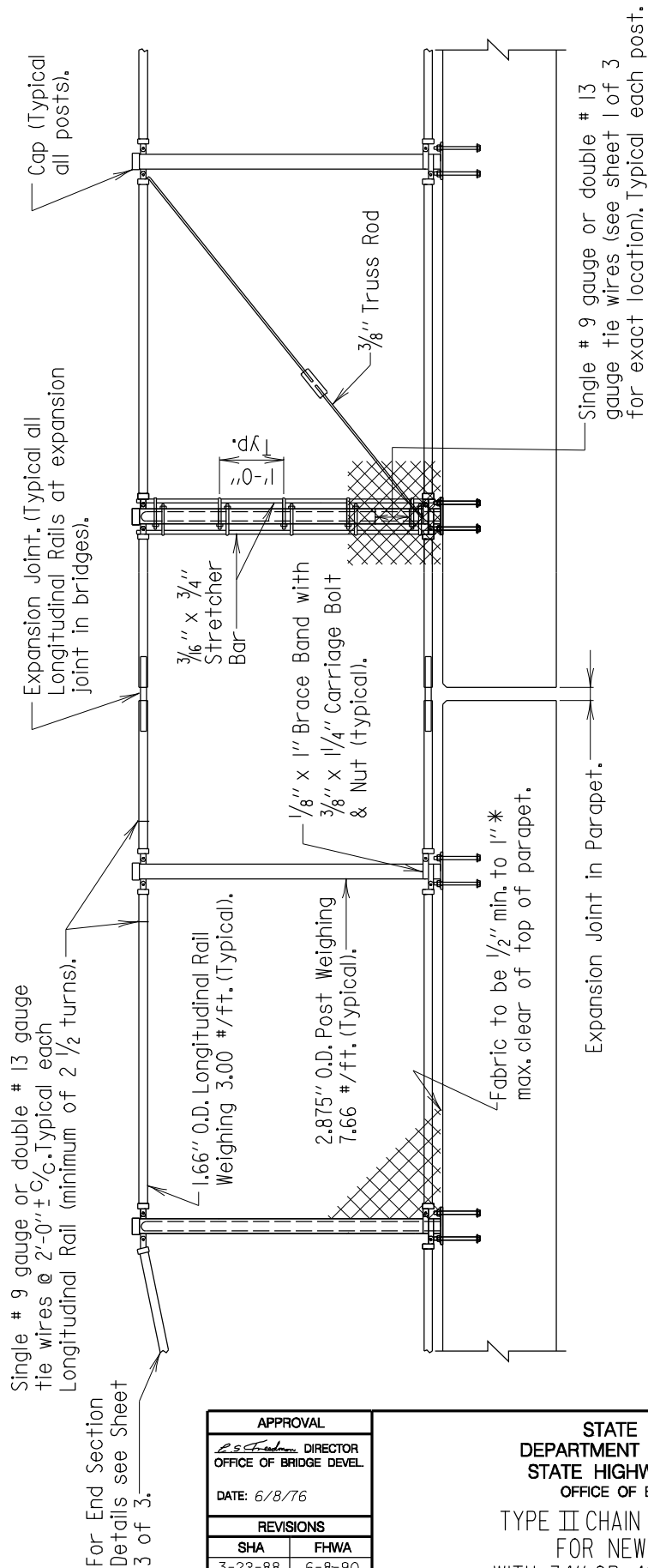
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF BRIDGE DEVELOPMENT

TYPE II CHAIN LINK SAFETY FENCE
FOR NEW STRUCTURES
WITH 34" OR 42" F-SHAPE PARAPET

STANDARD NO. BR-SS(3.03)-05-23

SHEET 1 OF 3

SUPER-FENCING NEW STRUCT.



ELEVATION
Scale: 3/8"=1'-0"

* Before placing fencing, place 1/2" to 1" thick material (wood, etc.) on top of parapet to ensure the desired gap is achieved. After fence is rigidly attached, this temporary blocking shall be removed.

For End Section
Details see Sheet
3 of 3.

FHWA APPROVAL
DATE: 11-9-76

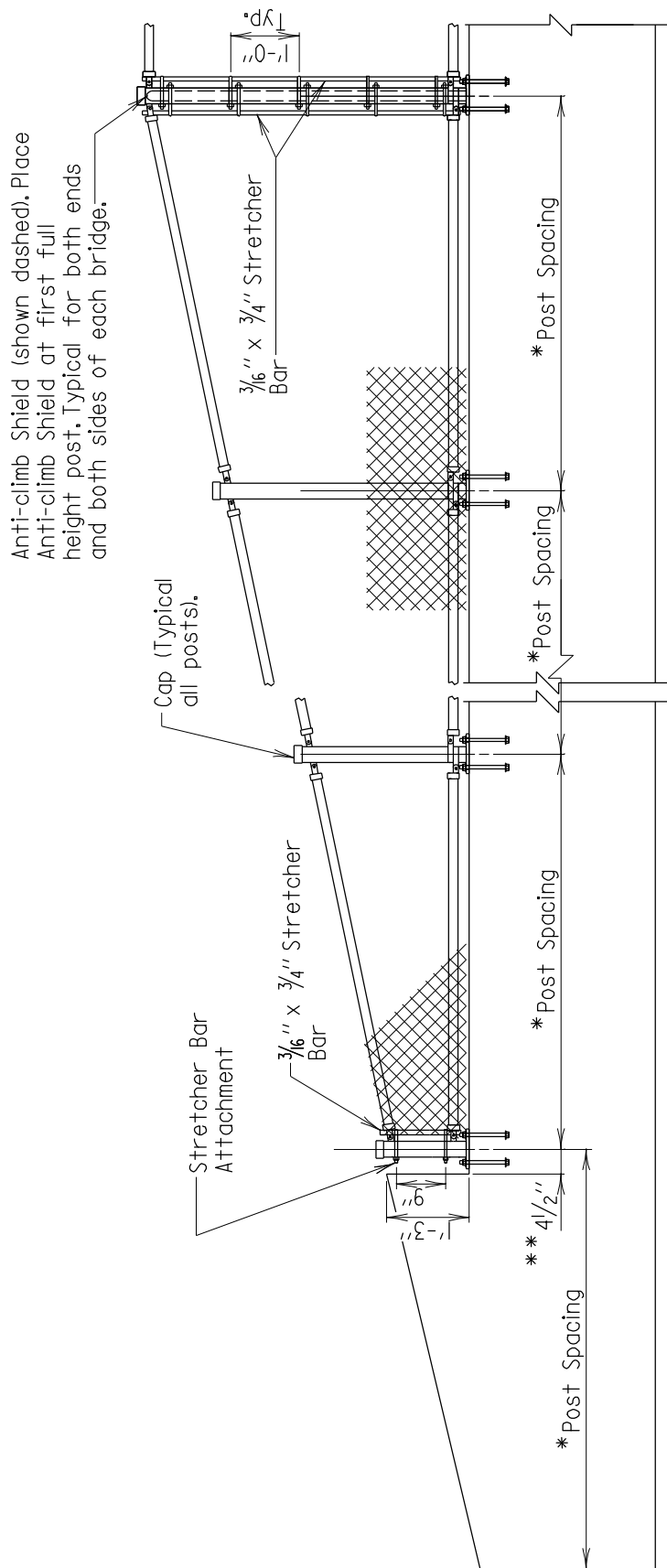
APPROVAL	
<i>R. S. Fisher</i>	DIRECTOR OFFICE OF BRIDGE DEVEL.
DATE: 6/8/76	
REVISIONS	
SHA	FHWA
3-22-88	6-8-90
11-17-97	.
3-21-01	.
6-1-05	.

STANDARD NO. BR-SS(3.03)-05-23

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
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OFFICE OF BRIDGE DEVELOPMENT
TYPE II CHAIN LINK SAFETY FENCE
FOR NEW STRUCTURES
WITH 34" OR 42" F-SHAPE PARAPET

SHEET 2 OF 3

SUPER-FENCING NEW STRUCT.



* See plans for fence post spacing.
 ** Dimension is 1'-0" when first fence post is on the bridge.

END SECTION DETAIL

Scale: 3/8" = 1'-0"

APPROVAL	
<i>R. S. Fisher</i> DIRECTOR OFFICE OF BRIDGE DEVELOPMENT	
DATE: 6/19/89	
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11-17-97	.
6-1-05	.

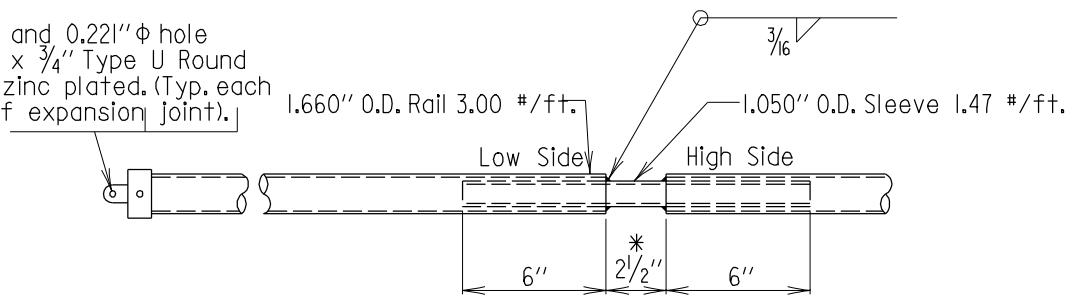
FHWA APPROVAL
DATE: 6-8-90

STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF BRIDGE DEVELOPMENT
 TYPE II CHAIN LINK SAFETY FENCE
 FOR NEW STRUCTURES
 WITH 34" OR 42" F-SHAPE PARAPET

STANDARD NO. BR-SS(3.03)-05-23

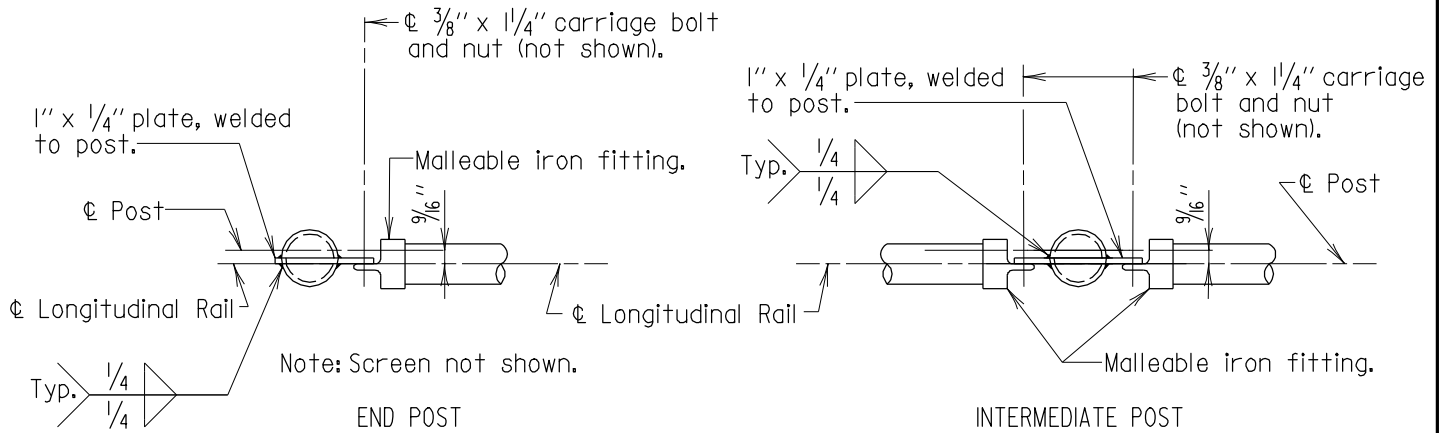
SHEET 3 OF 3

Drill 0.250" ϕ hole fitting and 0.221" ϕ hole (#2 drill) in rail for 1-#14 x 3/4" Type U Round Head Steel Drive Screw zinc plated. (Typ. each fitting on either side of expansion joint).



EXPANSION JOINT DETAILS

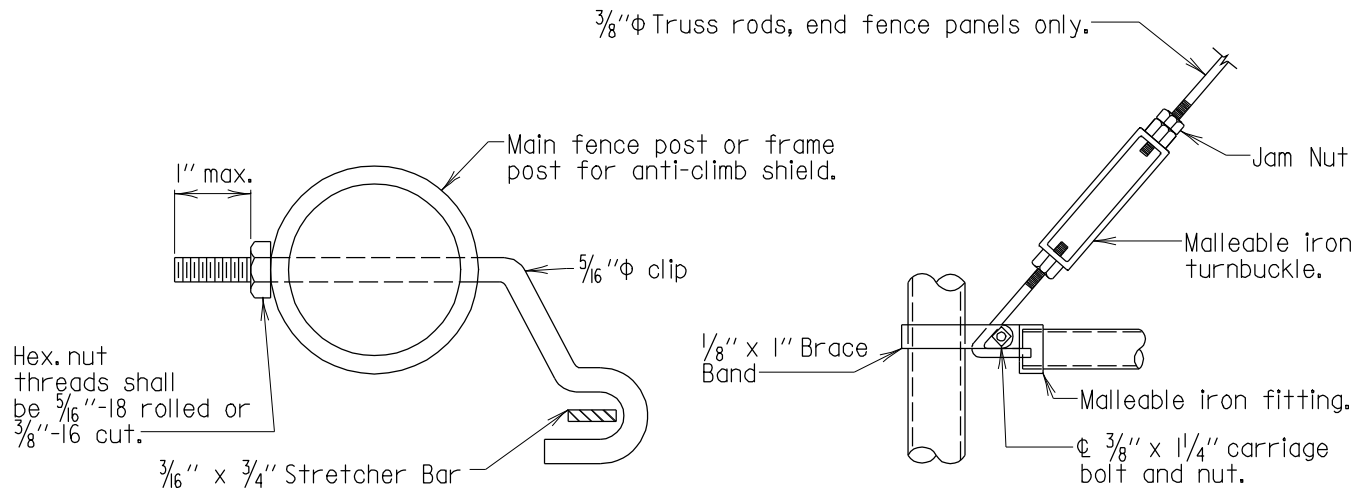
Scale: 1 1/2" = 1'-0"



TOP LONGITUDINAL RAIL - POST ATTACHMENT

Scale: 1 1/2" = 1'-0"

3/8" ϕ Truss rods, end fence panels only.



STRETCHER BAR ATTACHMENT

Scale: None

TRUSS ROD ATTACHMENT

Scale: 1 1/2" = 1'-0"

* If opening in parapet is 2 1/2" or less. If opening is greater than this, dimension shall be increased to match proposed movement.

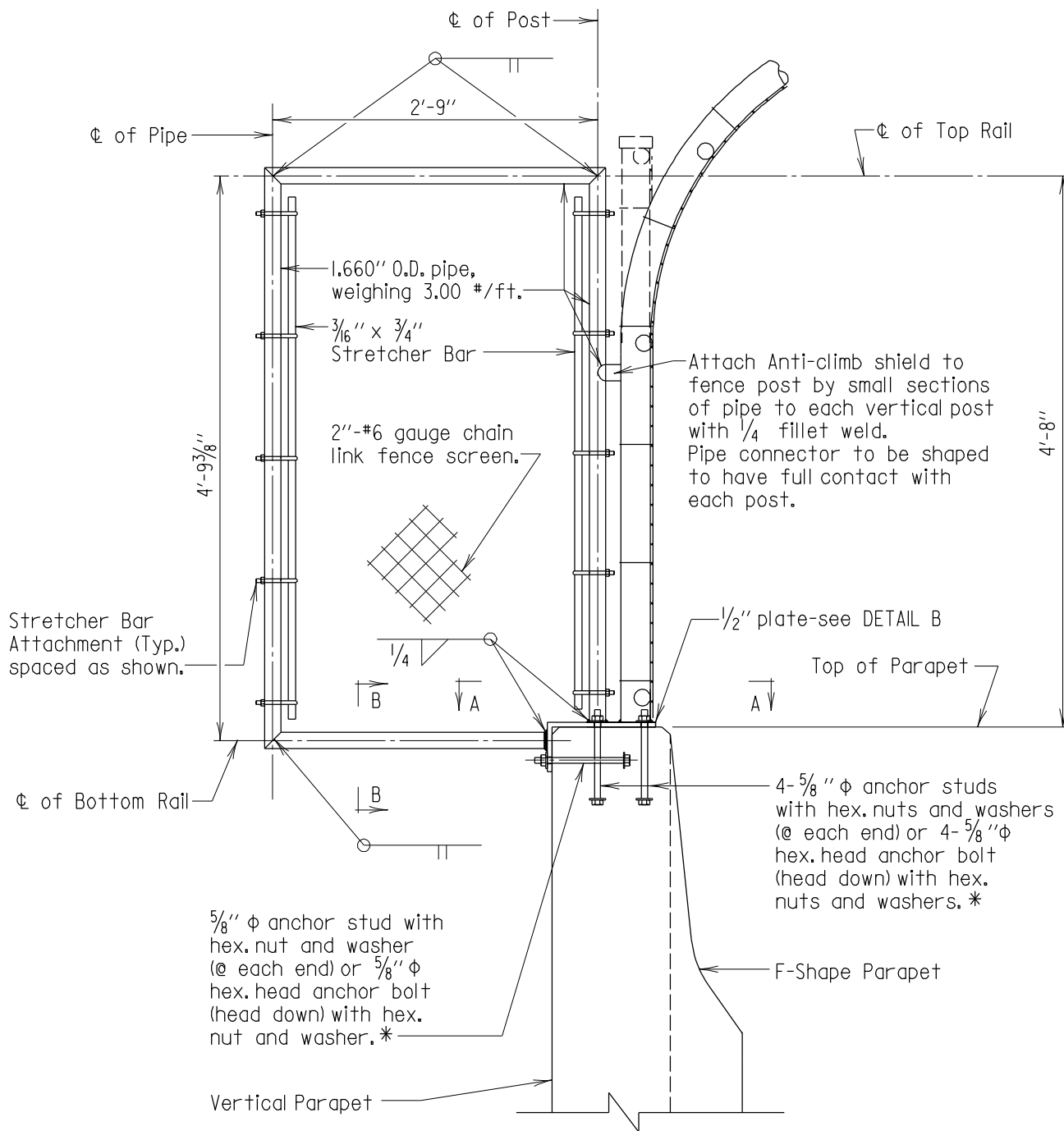
APPROVAL	
<i>L.S. Friedman</i>	DIRECTOR
OFFICE OF BRIDGE DEVELOPMENT	
DATE: 6/3/76	
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SHA	FHWA
8-4-87	6-8-90
1-22-01	
FHWA APPROVAL	
DATE: 11-9-76	

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF BRIDGE DEVELOPMENT
CHAIN LINK SAFETY FENCE - NEW STRUCTURES
MISCELLANEOUS DETAILS

STANDARD NO. BR-SS(3.04)-75-24

SHEET 1 OF 1

SUPER-FENCING NEW STRUCT.



* As an option, the Contractor may set the anchor studs after placing concrete barrier using $\frac{7}{8}$ " dia. cored holes and an approved epoxy grout. Nuts and washers shall be omitted from the embedded ends of anchor studs. No additional compensation will be allowed for this option.

TYPICAL SECTION

Scale: $\frac{3}{4}$ " = 1'-0"

Note:
Straight back parapet shown, see Typical Section for exact configuration.

Note:
For Sections A-A and B-B see Sheet 2 of 2 of this standard.

APPROVAL	
<i>L.S. Friedman</i>	DIRECTOR
OFFICE OF BRIDGE DEVELOPMENT	
DATE: 6/3/76	
REVISIONS	
SHA	FHWA
1-11-88	6-8-90
3-13-01	.
7-26-01	.
9-2-03	.

FHWA APPROVAL
DATE: 10-3-80

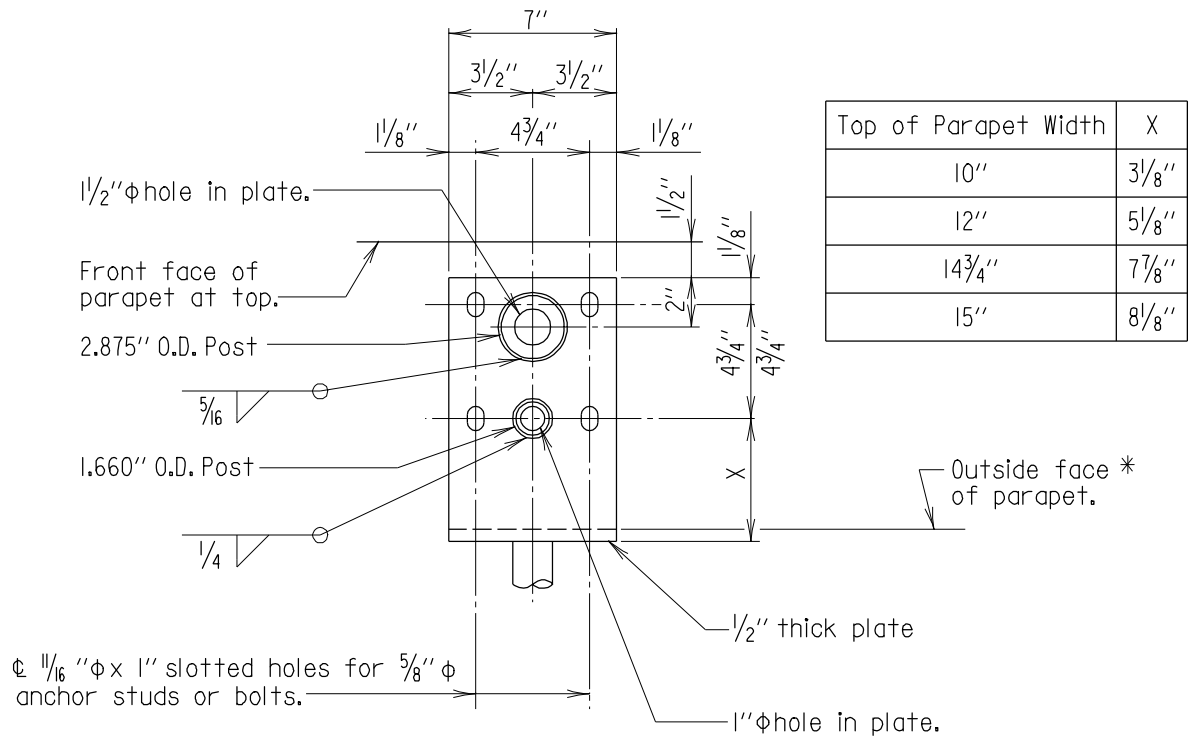
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF BRIDGE DEVELOPMENT

ANTI-CLIMB SHIELD FOR
CHAIN LINK SAFETY FENCES TYPES I AND II

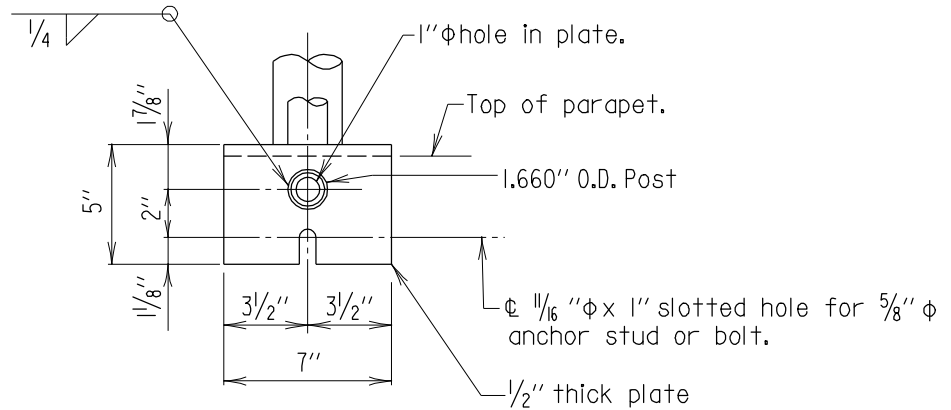
STANDARD NO. BR-SS(3.05)-75-25

SHEET 1 OF 2

SUPER-FENCING NEW STRUCT.



SECTION A-A
 Scale: 1 1/2" = 1'-0"



SECTION B-B
 Scale: 1 1/2" = 1'-0"

* For Special Parapets outside face of parapet to be formed with a 8" wide recess, perpendicular to top of parapet, to accept anti-climb shield base plate. Recess to be 5" long measured from top of parapet.

APPROVAL	
<i>L. S. Friedman</i>	DIRECTOR
OFFICE OF BRIDGE DEVELOPMENT	
DATE: 6/3/76	
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SHA	FHWA
8-3-84	11-8-84
1-11-88	6-8-90
3-21-01	

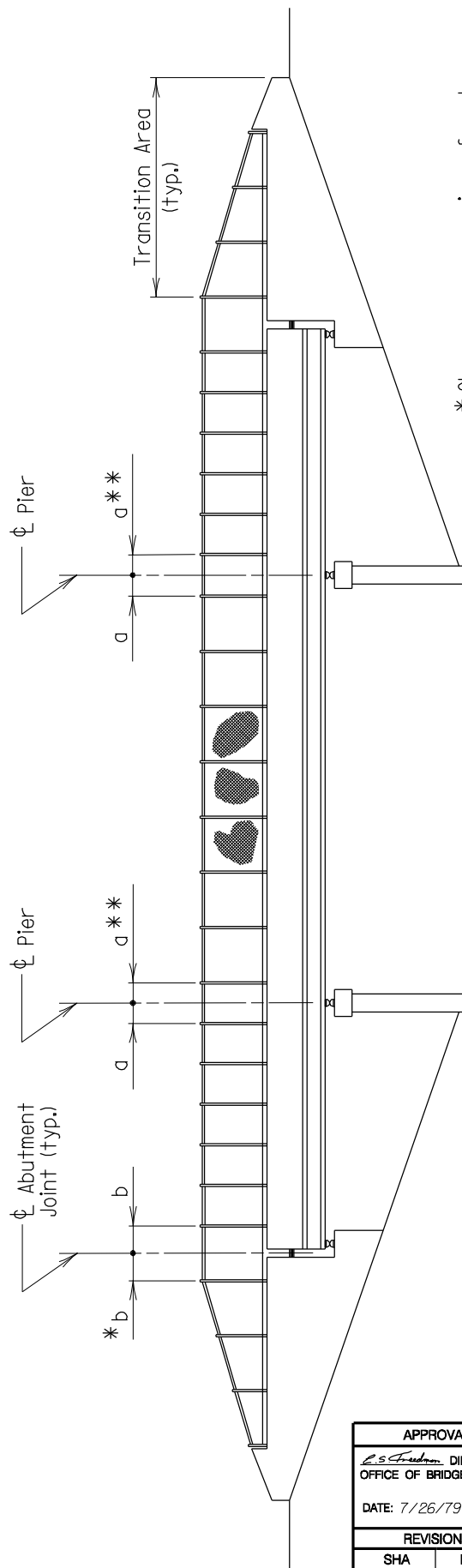
FHWA APPROVAL
 DATE: 10-3-80

STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF BRIDGE DEVELOPMENT
 ANTI-CLIMB SHIELD FOR
 CHAIN LINK SAFETY FENCES TYPES I AND II

STANDARD NO. BR-SS(3.05)-75-25

SHEET 2 OF 2

SUPER-FENCING NEW STRUCT.



ELEVATION - FENCING

Scale: None

FENCE SPACING ON BRIDGES

- All spacings shall be equal in each span, and on each transition area of each end post.
- Fence post spacing should range from 6'-0" min. to 8'-0" max. except as modified in the transition area described on Sheet 2. Effort should be made to make spacing of posts for all spans nearly equal as possible.
- Transition areas shall be provided on both ends of the bridge comprised of a tapered concrete lug and three fence panels, all equally spaced as shown on Sheet 2 of 2.
- Fence shall be continuous across all supports.
- This layout applies to 34" F-shape parapets, 42" F-shape parapets, and parapets with sidewalks.

FOR OFFICE USE ONLY

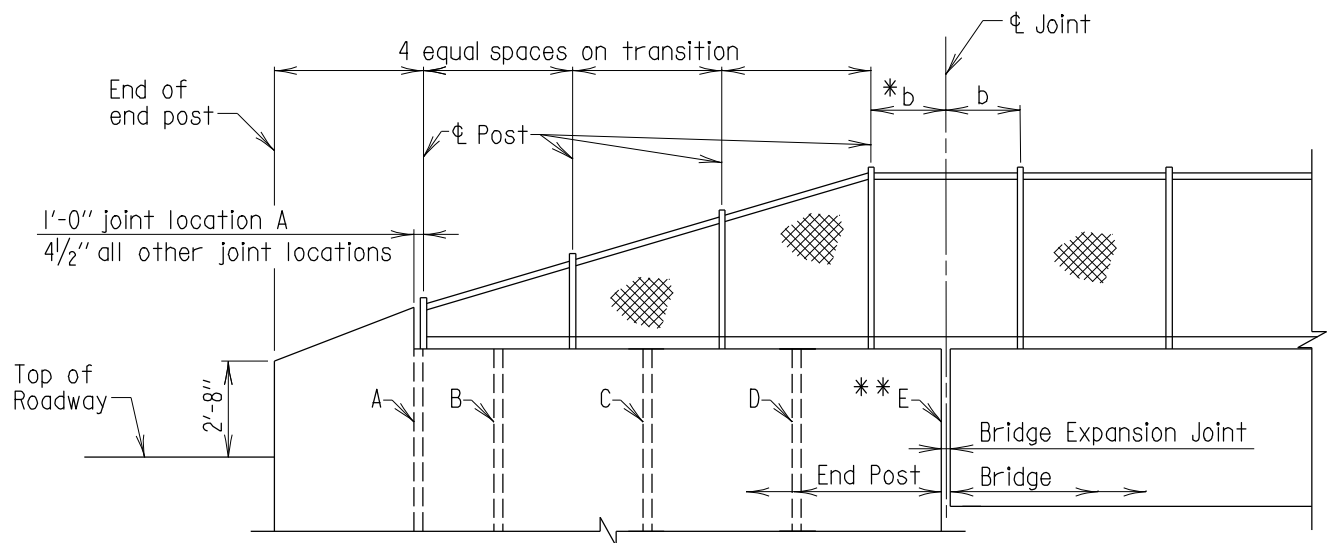
APPROVAL <i>L. S. Friedman</i> DIRECTOR OFFICE OF BRIDGE DEVEL. DATE: 7/26/79	
REVISIONS	
SHA	FHWA
3-7-83	.
3-15-83	.
6-1-05	.
FHWA APPROVAL DATE: 12-19-79	

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF BRIDGE DEVELOPMENT

LAYOUT OF FENCING ON BRIDGES

STANDARD NO. BR-SS(3.06)-03-78

SHEET 1 OF 2



* 2b = average spacing of end post and adjacent span, with exceptions stated in Note 4.

ELEVATION - END POST TRANSITION AREA

Scale: None

Notes:

1. Transition areas should be provided on both ends of the bridge, comprised of a tapered concrete lug and three tapered fence panels, all equally spaced.
2. The end of the concrete lug on both the approach and trail end shall be 2'-8".
3. The End Post Transition Area shall always begin at the end of the end post and be laid out in accordance with the following chart.
4. When roadway joint falls in the middle of a tapered panel (Joint Locations B, C, and D) the first full height panel on the bridge shall be the average spacing of the panels in the transition area and the adjacent span.

END POST TRANSITION AREA

Roadway Joint Location	End Post Length	Fence Transition Panels on End Post	Fence Transition Panels on Bridge
A	$L \leq 8'-0''$	0	3
B	$8'-0'' < L \leq 12'-0''$	$\frac{1}{2}$	$2\frac{1}{2}$
C	$12'-0'' < L \leq 20'-0''$	$1\frac{1}{2}$	$1\frac{1}{2}$
D	$20'-0'' < L \leq 28'-0''$	$2\frac{1}{2}$	$\frac{1}{2}$
**E	$28'-0'' < L$	$3 + (n + \frac{1}{2})$ full height panels	0

** Location of Bridge Expansion Joint E varies depending on the number of full height panels on the endpost.

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n = the number of full height panels on the end post

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<i>L. S. Friedman</i> DIRECTOR OFFICE OF BRIDGE DEVELOPMENT	
DATE: 6/1/05	
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DATE: .

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF BRIDGE DEVELOPMENT

LAYOUT OF FENCING ON BRIDGES

STANDARD NO. BR-SS(3.06)-03-78

SHEET 2 OF 2

SUPER-FENCING NEW STRUCT.

GENERAL NOTES

- Specifications:** Latest SHA Specifications and Special Provisions for materials and construction. Latest AASHTO Standard Specifications for Highway Bridges for design.
- Materials:** Posts and rails shall conform to ASTM F-1083, Schedule 80. Fabric shall be 6 gauge, 2" PVC coated mesh conforming to 914.01.
- All posts, braces, fittings and hardware shall be PVC coated. Coating shall conform to 914.03 except that nuts, bolts and washers shall also be PVC coated and touched up after installation.
- All plates shall be steel conforming to ASTM A 709 Grade 36.
- Anchor studs or anchor bolts shall conform to ASTM A 276, Type 430 or Type 304 stainless steel annealed, hot-finished, ultimate strength 70 000 psimin., 20% min. elongation. Threads may be rolled or cut.
- Epoxy grout for anchor studs in cored holes shall conform to 902.11(d).
- PVC color for all elements of fence shall be black unless otherwise noted.
- Construction:** All longitudinal rails shall be parallel to top of wall.
- All posts shall be set normal to top of wall for roadway grades 6% or less. For grades over 6% posts shall be set plumb.
- The chain link fence shall be true to line, taut, tight fit to top of wall ($\frac{1}{2}$ " maximum gap) and shall comply with the best practice for fence construction of this type.
- Post and rails shall be permanently positioned before fabric is placed.
- For post spacing see pertinent structure sheets.
- Precoated longitudinal rails, if cut, shall have the cut end coated with PVC touch up material supplied by the manufacturer prior to erection.
- If Contractor elects to place anchor studs after placing concrete wall, newly placed rebars shall be located so that coring does not damage same, all holes shall be cored (not drilled) and the diameter of the cored holes for the anchor studs shall be $\frac{1}{8}$ ".
- Measurement and Payment:** The furnishing, fabricating, erecting, etc., of all new chain link fence on the retaining wall or culvert headwalls and wing walls, complete in place, will not be measured for payment but all costs thereof shall be included in the Contract lump sum prices for the pertinent Retaining Wall or Box Culvert item(s).
- Any defects uncovered by the inspection of welds on base plates and poles shall be repaired or replaced by new members at no additional cost to the Administration.

APPROVAL	
<i>E.S. Friedman</i> DIRECTOR OFFICE OF BRIDGE DEVELOPMENT	
DATE: 11/6/96	
REVISIONS	
SHA	FHWA
3-13-01	.
7-24-01	.
FHWA APPROVAL	.
DATE:	.

	STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF BRIDGE DEVELOPMENT CHAIN LINK SAFETY FENCE RETAINING WALLS AND BOX CULVERTS GENERAL NOTES	
STANDARD NO. BR-SS(3.11)-96-317		SHEET <u>1</u> OF <u>1</u>

SUPER-FENCING NEW STRUCT.

1.660" O.D. pipe, weighing 3.00 #/ft.
(Typical all longitudinal rails).

2.875" O.D. pipe, weighing 7.66 #/ft.
(Typical all posts).

2"-#6 gauge chain link
fence screen (3'-0").

1/2" plate-see DETAIL A

Typ. $\frac{5}{16}$

1 3/4"

9"

7 1/4"

3 1/2"

2"

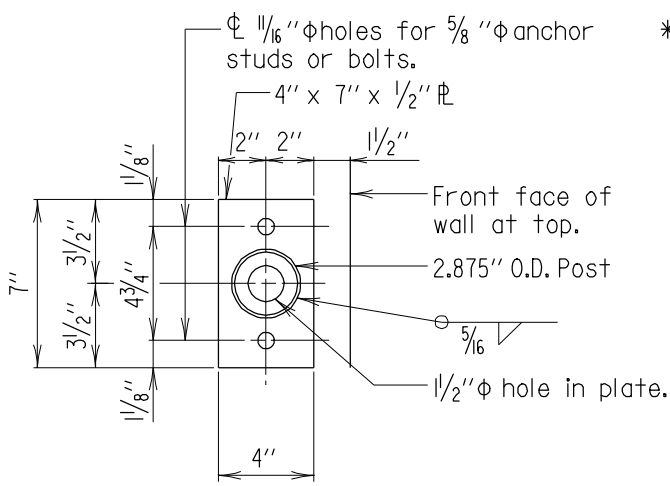
3'-0 1/2"

2- 5/8" ϕ anchor studs with nuts and washers
(@ each end) or 2- 5/8" ϕ hex. head anchor bolts
(head down) with hex. nuts and washers.*

Top of Finished
Ground.

TYPICAL SECTION

Scale: 3/4" = 1'-0"



* As an option, the Contractor may set the anchor studs after placing concrete wall using 7/8" dia. cored holes and an approved epoxy grout. Nuts and washers shall be omitted from the embedded ends of anchor studs. No additional compensation will be allowed for this option.

Note:
This fence shall be used on box culverts with headwalls located at the bottom of fill slopes.

APPROVAL	
<i>E. S. Friedman</i>	DIRECTOR
OFFICE OF BRIDGE DEVELOPMENT	
DATE: 11/6/96	
REVISIONS	
SHA	FHWA
3-13-01	.
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FHWA APPROVAL
DATE:

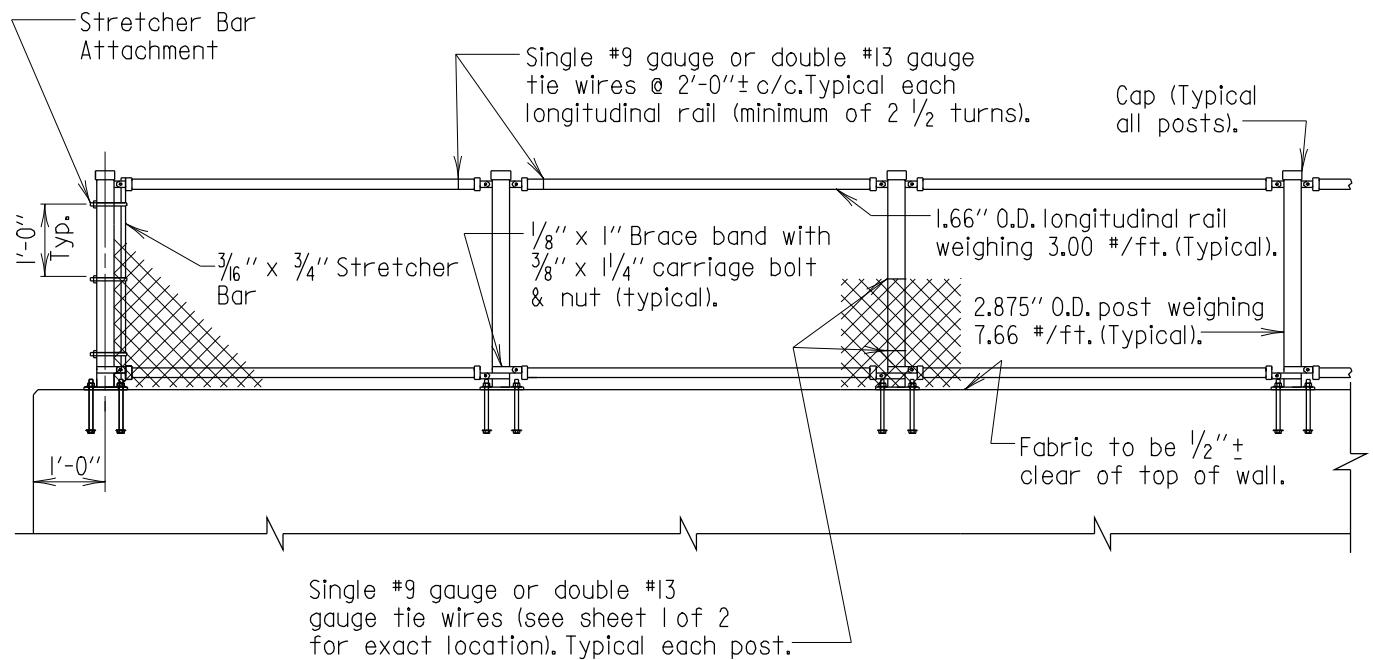
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF BRIDGE DEVELOPMENT

TYPE III CHAIN LINK SAFETY FENCE
RETAINING WALLS AND BOX CULVERTS

STANDARD NO. BR-SS(3.12)-96-318

SHEET 1 OF 2

SUPER-FENCING NEW STRUCT.



ELEVATION

Scale: 3/8" = 1'-0"

Note:
For additional details see Std. No.
BR-SS(3.04)-75-24.

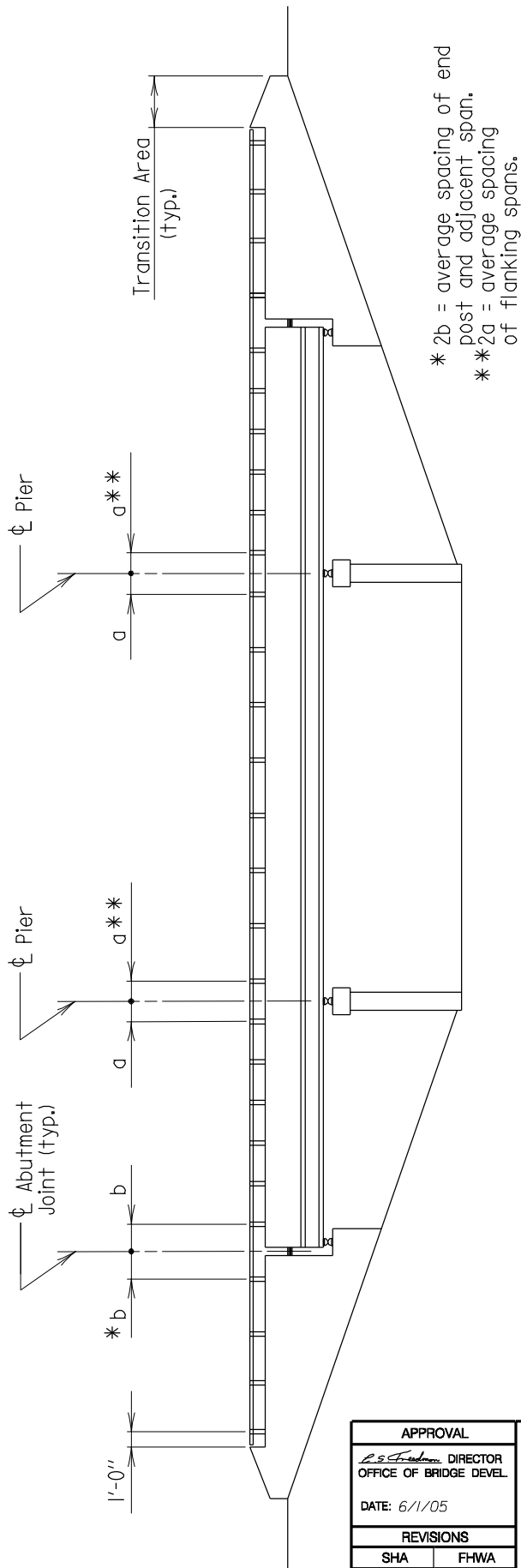
APPROVAL	
<i>L. S. Friedman</i>	DIRECTOR
OFFICE OF BRIDGE DEVELOPMENT	
DATE: 11/6/96	
REVISIONS	
SHA	FHWA
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FHWA APPROVAL	.
DATE:	.

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF BRIDGE DEVELOPMENT

TYPE III CHAIN LINK SAFETY FENCE
RETAINING WALLS AND BOX CULVERTS

STANDARD NO. BR-SS(3.12)-96-318

SHEET 2 OF 2



ELEVATION - RAILING

Scale: None

POST SPACING ON BRIDGES WITH ONE OR TWO STRAND RAILING

- All spacings shall be equal in each span, and on each end post.
- Rail post spacing should range from 6'-0" min. to 8'-0" max. unless a closer post spacing is required due to crash test and as modified in the transition area described on Sheet 2. Effort should be made to make spacing of posts for all spans as nearly equal as possible.
- Transition areas shall be provided on both ends of the bridge comprised of a tapered concrete lug as shown on Sheet 2 of 2.
- Rail shall be continuous across all supports.

FOR OFFICE USE ONLY

APPROVAL	
<i>[Signature]</i>	DIRECTOR
OFFICE OF BRIDGE DEVEL.	
DATE: 6/1/05	
REVISIONS	
SHA	FHWA

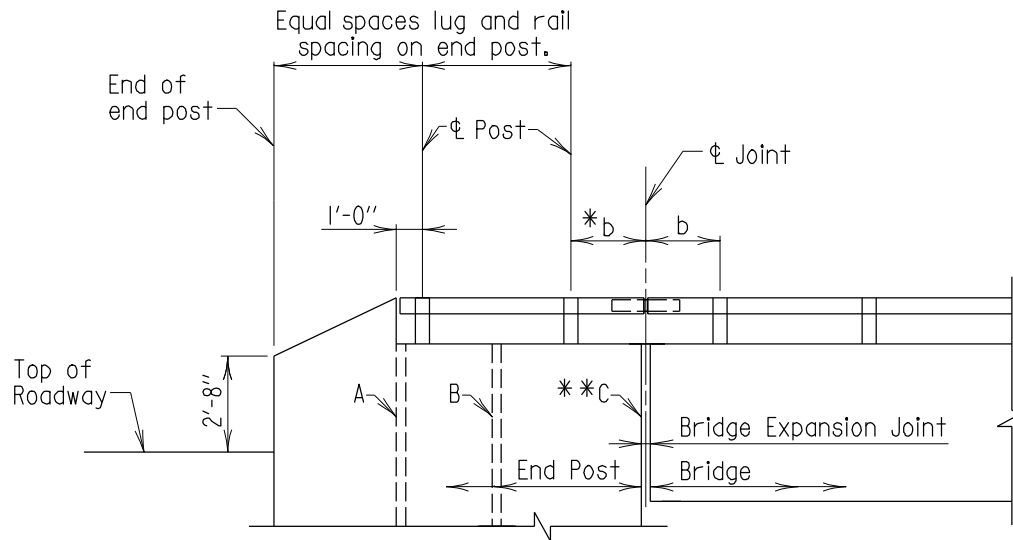
FHWA APPROVAL
DATE: .

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF BRIDGE DEVELOPMENT

LAYOUT OF RAILING ON BRIDGES

STANDARD NO. BR-SS(3.13)-05-374

SHEET 1 OF 2



ELEVATION - END POST TRANSITION AREA

Scale: None

Notes:

1. Transition areas should be provided on both ends of the bridge, comprised of a tapered concrete lug.
2. Transition areas will always begin at the end of the end posts and be laid out in accordance with the following chart.
3. All rail spaces shall be equal in each span.

END POST TRANSITION AREA

Roadway Joint Location	End Post Length	Rail Panels on End Post
A	$L \leq 8'-0''$	0
B	$8'-0'' < L \leq 12'-0''$	$\frac{1}{2}$
**C	$20'-0'' < L$	$(n + \frac{1}{2})$ full rail panel

** Location of Bridge Expansion Joint C varies depending on the number of full height rail panels on the endpost.

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n = the number of full rail panels on the end post

APPROVAL	
<i>L. S. Friedman</i>	DIRECTOR
OFFICE OF BRIDGE DEVELOPMENT	
DATE: 6/11/05	
REVISIONS	
SHA	FHWA

FHWA APPROVAL
DATE: .

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF BRIDGE DEVELOPMENT

LAYOUT OF RAILING ON BRIDGES

STANDARD NO. BR-SS(3.13)-05-374

SHEET 2 OF 2

SUPER-FENCING NEW STRUCT.